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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,469

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Chul-Sik Yoon

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EXAMINER

DOAN, PHUOC HUU

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

12/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,469	Applicant(s) YOON ET AL.	
	Examiner PHUOC DOAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,10-12,14,15 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 2-3,9,16-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12, 14-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-8, 10-12, 14-15, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fong (US Pub No. 2004/0013102) in view of Ahn (US Pub No. 2007/0024559).

As to claim 1, Fong discloses a method for requesting channel quality information (CQI) in a wireless portable Internet system (par [0023-0024, 0053] “wireless communication system associated with the receiving signal that provided by channel quality information CQI or signal quality”), comprising: a) a base station determining timing of a channel quality information request (par [0023, 0053]); b) requesting an automatic repeat

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request acknowledgement (ARQ-ACK) message of downlink data upon requesting the CQI from a subscriber station (par [0042, 0049, 0053] “where ARQ acknowledgement ACK message downlink from mobile stations 14”) a; c) allocating a radio resource for the ARQ-ACK message and the channel quality report to the subscriber station ([0042, 0049, 0053]); d) receiving information on the ARQ-ACK message and the channel quality report ([0042, 0049, 0053]); and e) determining a modulation and coding level of downlink data by extracting the channel quality report information from the ARQ-ACK (par [0040, 0043] “applied modulation and coding that extracting the channel quality”). However, xxx unclearly discloses requesting an automatic repeat request acknowledgement message of downlink data upon requesting the control quality information from a subscriber station. yyy clearly discloses requesting an automatic repeat request acknowledgement message of downlink data upon requesting the control quality information from a subscriber station (par 0027, 0043, 0048-0049, 0068, 0076] “where of transmitting at least one acknowledgement signal using automatic repeat request ARQ; ARQ-ACK downlink data upon requesting the control quality information from a mobile station based up on channel control or recognition of the data packet acknowledgment”).

Therefore, it would have been obvious to one of ordinary skill in the art of

providing as teaching above to yyy, in order to save the power that required in the transmission of the ACK/NACK signals can be reduced.

As to claim 4, 18, Fong further discloses the method for reporting the channel quality information of claim 1, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink (par [0053] “the received signal quality or control quality information CQI”).

As to claim 5, 20, Fong further discloses the method for reporting the channel quality information of claim 1, wherein information on the radio resource allocated for reporting the CQI is transmitted while being included in the UL-MAP of a downlink frame (par [0026, 0053]).

As to claim 6, 21, Fong further discloses the method for reporting the channel quality information of claim 1, further comprising: controlling the period and frequency of the CQI based on the received CQI (par [0053] “the received signal quality or control quality information CQI”).

As to claim 7, 19, Fong further discloses the method for reporting the channel quality information of claim 4, further comprising: allocating a radio resource for reporting the CQI at the front time slot of the uplink resource for the subscriber station having the larger standard deviation of the CINR

(par [0053] “the received signal quality or control quality information CQI”).

As to claim 8, claim is rejected for the same reasons as set forth in claim 1.

As to claim 10, Fong further discloses the method for reporting the channel quality information of claim 8, further comprising: a-2) determining whether the REP_REQ MAC message is transmitted from the base station (par [0024-0026]); b-2) measuring the CQI and updating the same into the latest value when the REP_REQ MAC message is transmitted (par [0053]); c-2) acknowledging a radio resource of a dedicated channel allocated for the CQI report (par [0027]); and d-2) transmitting the CQI through the dedicated channel to the base station (par [0027, 0053]).

As to claim 11, Fong further discloses the method for reporting the channel quality information of claim 8, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink (par [0053] “the received signal quality or control quality information CQI”).

As to claim 12, Fong further discloses the method for reporting the channel quality information of claim 8, wherein the radio resource allocation

information for reporting the CQI transmitted to the base station is included in the UP-MAP of an uplink frame (par [0026, 0053]).

As to claim 13, claim is rejected for the same reasons as set forth in claim 1.

As to claim 14, claim is rejected for the same reasons as set forth in claim 1.

Allowable Subject Matter

3. Claims 2-3, 9, 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-

7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/
Examiner, Art Unit 2617